Work Order ID 123189

July-31-14 9:24:36 AM

123189

Item ID: D3508-9
Revision ID:
Item Name: Stainless Steel Wearplate Fwd
Start Date: 7/31/14 **Start Qty:** 8.00 *8*
Required Date: 8/08/14 **Req'd Qty:** 8.00 *8*
Reference:

Accept *N900040100*

Setup Start *NS1*
Stop *NS2*

Cust Item ID:
Customer:

Approvals: **Process Plan:** ✓ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D3508	Rev C								
100		0.00							
100	FLOW WATER JET					8		mm	14/07/31
Waterjet	**Memo**	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D3508 Dwg Rev: C Prog Rev: C 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110						8		mm	14/07/31
QC	**Memo**	0.00							
Quality Control									
120	QC8- Inspect parts - second check	0.00 DAS 38 9-89							
120						8			
QC	**Memo**	0.00 14/08/01							
Quality Control									

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function

☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence

☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

_____
_____
_____

Work Order ID 123189

July-31-14 9:24:36 AM

123189

Item ID: D3508-9 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Stainless Steel Wearplate Fwd

Start Date: 7/31/14 **Start Qty:** 8.00 *8*

Required Date: 8/08/14 **Req'd Qty:** 8.00 *8*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	NC BRAKE					8X			14/08/07 DAS 36 9-89
Brake NC	**Memo**	0.00							
Brake NC	Deburr and form on brake using DT8326 and DT8261as per Dwg D3508								
140	QC5- Inspect part completeness to step on W/O	0.00							DAS 16 9-89 14/08/07
140						V8			
QC	**Memo**	0.00							
Quality Control									
150	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
150	125028					8			DAS 41 9-89
Powdercoat	**Memo**	0.00							14-8-10
Powder Coating	START TIME: 425 OVEN TEMPERATURE: 320 FINISH TIME: 455								

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

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Suspected Unapproved ☐

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Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
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Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
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Transport	☐									
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☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

_____
_____
_____

Work Order ID 123189

July-31-14 9:24:36 AM

123189

Item ID: D3508-9 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Stainless Steel Wearplate Fwd

Start Date: 7/31/14 **Start Qty:** 8.00 *8* **Cust Item ID:**

Required Date: 8/08/14 **Req'd Qty:** 8.00 *8* **Customer:**

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start** *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00							
160									
QC	**Memo**	0.00				8		QP	14/08/11
Quality Control									
170	Identify as per dwg & Stock Location: FP-002	0.00							
170									
Packaging	**Memo**	0.00				x8	d	QP	14/08/11
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	**Memo**	0.00				MCJ	14-08-11		
Quality Control									

14-8-11

DQA: _____ Date: _____

DART AEROSPACE

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

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Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
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Supplier	☐									
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☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

_____
_____
_____

Picklist Print

July-31-14 9:24:36 AM

Work Order ID: 123189

123189

Parent Item: D3508-9

D3508-9

Parent Item Name: Stainless Steel Wearplate Fwd

Start Date: 7/31/14 **Required Date:** 8/08/14

Start Qty: 8.00 **Required Qty:** 8.00

Comments: IPP Rev:A New Issue 07.06.12 EC
IPP Rev:B Rev C dwg 07-12-06 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA		Purchased	No			100	sf	295.2519	0.417	4			

M304S20GA

304/316 .040 Sheet

**

mm 14/07/31

Location	Loc Qty	Loc Code	
MAT020	295.2518948		
m126852	0.31		
m127454	26.1018948		
m128435	117.14		
m129128	6.5		
m129530	10.2		
m129845	135		44

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

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Suspected Unapproved ☐

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Doc/Data	☐									
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☐ Set-up
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☐ Weld
☐ Wrong Stock Pulled

☐ Other _____

DART AEROSPACE LTD	Work Order:	23189
Description: Wearplate	Part Number:	D3508-9
Inspection Dwg: D3508 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.063	+/-0.010	2.063	✓		V-Stm-01	
2.813	+/-0.010	2.813	✓		T-Stm-06	
0.375	+/-0.010	0.375	✓			
2.90	+/-0.030	2.90	✓			
5.800	+/-0.010	5.800	✓			
11.600	+/-0.010	11.600	✓			
17.400	+/-0.010	17.400	✓			
Ø0.188	+0.005/-0.001	0.188	✓			
0.300	+/-0.010	0.301	✓			
0.300	+/-0.010	0.302	✓			
0.038	+/-0.010	0.034	✓			

Measured by:	mm
Date:	14/07/31

Audited by:	~~DAS~~ 16 ~~389~~
Date:	14/08/12

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.07.24	New Issue	KJ/DD	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

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Use-as-is ☐
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AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
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FAULT CATEGORY

Landing Gear

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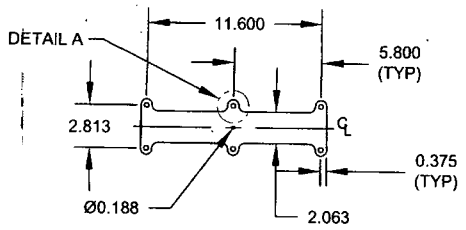
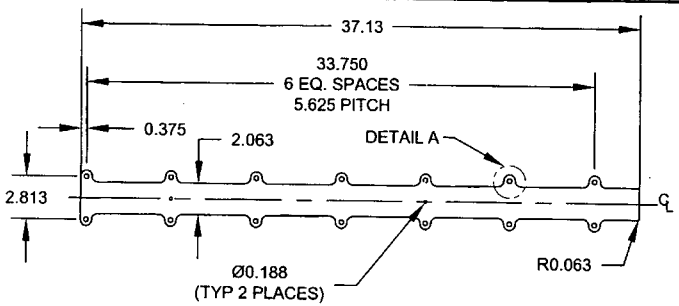
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

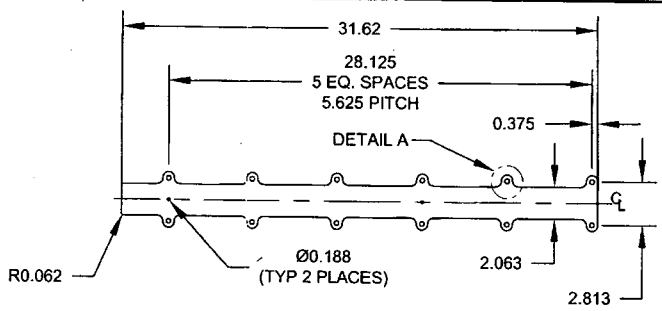
_____
_____
_____



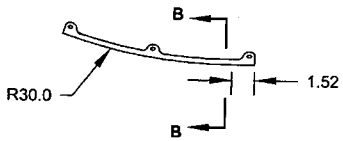
D3508-1 FLAT PATTERN



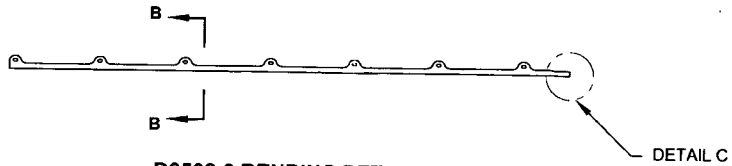
D3508-3 FLAT PATTERN



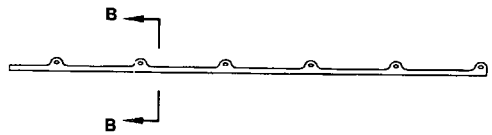
D3508-5 FLAT PATTERN



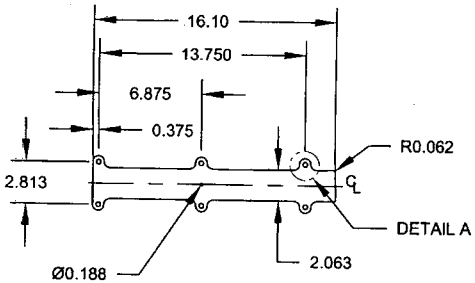
D3508-1 BENDING DETAIL
(MAKE FROM D3508-1F)



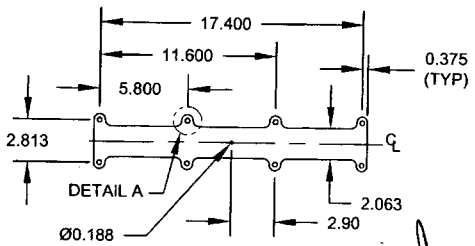
D3508-3 BENDING DETAIL
(MAKE FROM D3508-3F)



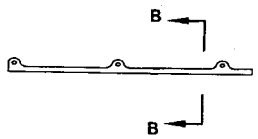
D3508-5 BENDING DETAIL
(MAKE FROM D3508-5F)



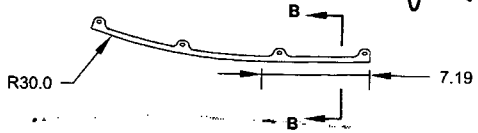
D3508-7F FLAT PATTERN



D3508-9F FLAT PATTERN



D3508-7F BENDING DETAIL
(MAKE FROM D3508-7F)



D3508-9F BENDING DETAIL
(MAKE FROM D3508-9F)

NOTES:

1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK)
(REF. DART MATERIAL SPEC M304S20GA)
2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
3) WELD PER DART QSI 004
4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005 TO 0.015
7) IDENTIFICATION: NONE
8) WEIGHT: D3508-1 - 0.47 lbs, D3508-3 - 0.95 lbs, D3508-5 - 0.77 lbs,
D3508-7 - 0.39 lbs, D3508-9 - 0.45 lbs, D3508-11 - 0.64 lbs
D3508-13 - 0.25 lbs

RELEASED
07.11.16

REV.	DESCRIPTION	BY	DATE
C	ADD -9/-11/-13 MOVE TAB OUTBOARD (2.813 WAS 2.733) CHANGE DRAWING FORMAT	PH	07.04.20
B	CHANGE STAINLESS STEEL, WIDEN	PH	06.10.27
A	NEW ISSUE	PH	06.04.21

DESIGN		DART AEROSPACE USA, INC PORT HADLOCK, WA
DRAWN		
CHECKED		DRAWING NO. REV. C
MFG. APPR.		D3508 SHEET 1 OF 2
APPROVED		TITLE SCALE
DE APPR.		WEARPLATE 1:8
DATE	07.04.20	

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DQA: _____ Date: _____

DART AEROSPACE

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

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DISPOSITION

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Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
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Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
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☐ Out of Calibration
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☐ Outside Dimensions
☐ Over/Under tolerance
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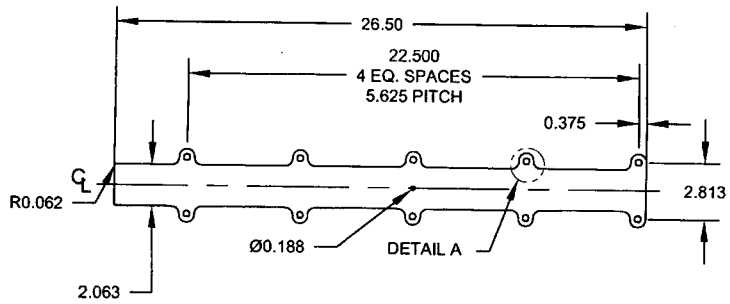
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

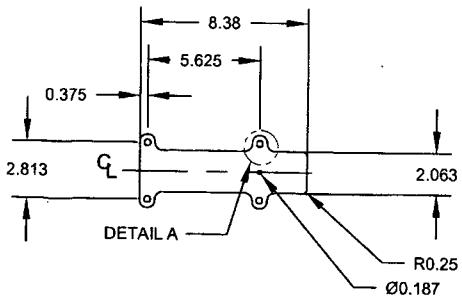
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

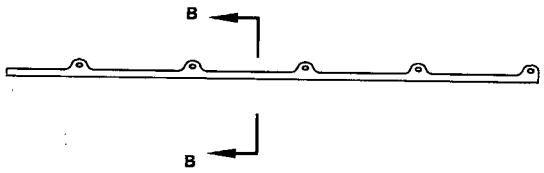
_____
_____
_____



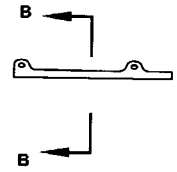
D3508-11F FLAT PATTERN



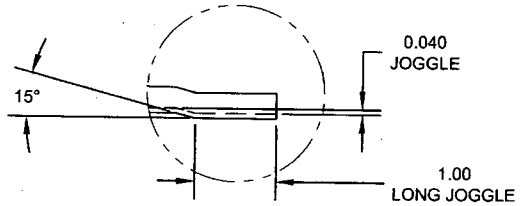
D3508-13F FLAT PATTERN



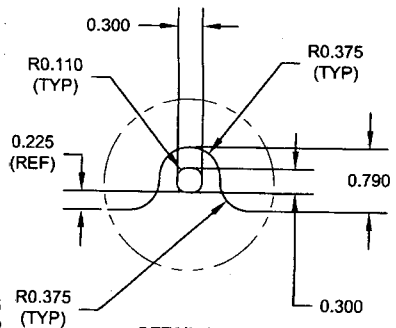
D3508-11 BENDING DETAIL
(MAKE FROM D3508-11F)



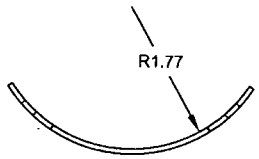
D3508-13 BENDING DETAIL
(MAKE FROM D3508-13F)



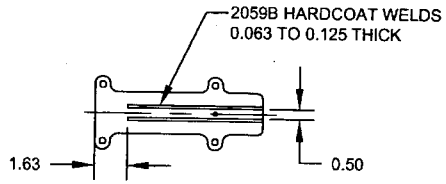
DETAIL C
(SCALE 1:2)



DETAIL A
(SCALE 2:3)



SECTION B-B
(SCALE 2:3)



D3508-13 WELDING DETAIL

RELEASED
07.11.16

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3508	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE	1:6
DATE	07.04.20		

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

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_____
_____
_____